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1 GTCCTTCCACCATGCACTCGCTGGGCTTCTTCTGTGGCGTGTCTCTGTCTCGCCCGCTG 60  
CAGGAAGGTGCTACGTAGCGACCCGAGAGAGACACCGCACAAAGAGACGAGCGCGGAC  
M H S L G F F S V A C S L L A A A -  
CGCTGCTCCCGGTCCTCGGAGGCGCCCGCCCGCCCGCTTCGAGTCCGGACTCG 120  
GGACGAGGCGCCAGGAGCGCTCCGCGGGCGGGCGGGGGAAGCTCAGGCCCTGAGC  
L L P G P R E A P A A A A F E S G L D -  
ACCTCTCGGACGGAGCCCGACGCGGGCGAGGCCACGGCTTATGCAAGCAAAGATCTGG 180  
TGGAGAGCCTGCGGCTCGGGCTGCGCCCGCTCCGGTGCCGAATACGTTCTTAGACC  
L S D A E P D A G E A T A Y A S K D L E -  
AGGAGCAGTTACGGTCTGTGTCCAGTGTAGATGAACCTCATGACTGTACTCTACCCAGAAT 240  
TCCTCGTCAATGCCAGACACAGGTCACATCTACTTGAGTACTGACATGAGATGGGTCTTA  
E Q L R S V S S V D E L M T V L Y P E Y -  
ATTGGAAAATGTACAAGTGTCAAGCTAAGGAAAGGAGGCTGGCAACATAACAGAGAACAGG 300  
TAACCTTTTACATGTTACAGTCGATTCCTTTCCCTCCGACCGTTGTATTGTCTTGTCC  
W K M Y K C Q L R K G G W Q H N R E Q A -  
CAAACCTCAACTCAAGGACAGAGACTATAAAATTGCTGCAGCACATTATAATACAG

MATCH WITH FIG. 1B

FIG. 1A

MATCH WITH FIG. 1A

301 -----+-----+-----+-----+-----+-----+ 360  
GTTGGAGTTGAGTTCCTGCTCTCTGATATTTAAACGACGTCGTTAATATATGTC  
N L N S R T E E T I K F A A A H Y N T E -

AGATCTTGAAAAGTATTGATAATGAGTGGAGAAAGACTCAATGCATGCCACGGGAGGTGT  
 361 -----+-----+-----+-----+-----+-----+-----+ 420

TCTAGAACTTTTCATAACTATTACTCACCTCTTTCTGAGTTACGTACGGTGCCCTCCACA  
I L K S I D N E W R K T Q C M P R E V C -

GTATAGATGTGGGAAGGAGTTTGGAGTCGGGACAAACACCTTCTTTAAACCTCCATGTG  
-----+-----+-----+-----+-----+-----+-----+ 480

CATATCTACACCCCTTCCTCAAACCTCAGCGCTTTGTGGAAGAAATTGGAGGTACAC  
I D V G K E F G V A T N T F F K P P C V -

181 TGTCCGCTACAGATGTGGGGGTTGCTGCAATAGTGAGGGGCTGCAGTGCATGAACACCA  
-----+-----+-----+-----+-----+-----+ 540

ACAGGCAGATGCTACACCCCCAACGACGTTATCACTCCCCGACGTCACGTA CT TGTGGT  
S V Y R C G G C C N S E G L O C M N T S -

GCACGAGCTACCTCAGCAAGACGTTATTTGAAATTACAGTGCCCTCTCTCAAGGCCCA  
 641 -----+-----+-----+-----+-----+-----+-----+ 600

CGTGCTCGATGGAGTCGTTCTGCAATAAACTTTAATGTCACGGAGAGAGAGTTCGCGGGT  
T S Y L S K T L F E I T V P L S O G P K -

AACCAGTAACAATCAGTTTGGCCAATCACACTTCTCCGATGCATGCTAAACTGGATG  
01 -----+-----+-----+-----+-----+-----+-----+ 660

TTGGTCATTGTTAGTCAAAACGGTTAGTGTGAAGGACGGCTACGTACAGATTGACCTAC  
P V T I S F A N H T S C R C M S K L D V -

MATCH WITH FIG. 1C

**FIG. 1B**





V C K N K L F P S Q C G A N R E F D E N -

T G T G T A C G G T C A C A C A T A C A T T T C T T G G A C G G G T C T T T A G T G G G A T T A G G A C C T T

TTACACGGACACTTACATGTCTTTCAGGTGCTTTACGAACAATTTCTCTTCTCAAGG  
C A C E C T E S P Q K C L L K G K K F H

H Q T C S C Y R R P C T N R Q K A C E P  
TGGTGGTTGTACGTCGACAAATGTCTGCCGGTACATGCTTGGCGGTCTTCCGAACACTCG

GTCCCTAAAGTATATCACTTCTCACACAGCAACACAGGAGTATAACCGTTTCTCTGGTG  
G F S Y S E E V C R C V P S Y W O R P O

AAATGAGCTAAGATTGTACTGTGTTTCCAGTTCATCGATTTTCTATTATGGA AACTGTGT

MATCH WITH FIG. 1E

MATCH WITH FIG. 1E

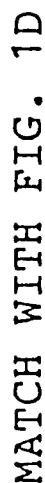


FIG. 1E

1 CGAGGCCACGGCTTATGCAAGCAAGATCTGGAGGAGCAGTTACGGTCTGTGTCCAGTGT  
-----+-----+-----+-----+-----+-----+-----+  
71 AGATGAACTCATGACTGTACTCTACCCAGAATATTGGAAATGTACAAGTGTCAAGCTAAG  
-----+-----+-----+-----+-----+-----+-----+  
M T V L Y P E Y W K M Y K C Q L R  
-----+-----+-----+-----+-----+-----+-----+  
121 GAAAGGAGGCTGGCAACATAACAGAGAACAGGCCAACCTCAACTCAAGGACAGAAGAGAC  
-----+-----+-----+-----+-----+-----+-----+  
K G G W Q H N R E Q A N L N S R T E E T  
-----+-----+-----+-----+-----+-----+-----+  
181 TATAAAATTTGCTGCAGCACATTATAATACAGAGATCTTGAAAGTATTGATAATGAGTG  
-----+-----+-----+-----+-----+-----+-----+  
I K F A A A H Y N T E I L K S I D N E W  
-----+-----+-----+-----+-----+-----+-----+  
241 GAGAAAGACTCAATGCATGCCACGGGAGGTGTGTATAGATGTGGGGAAGGAGTTTGGAGT  
-----+-----+-----+-----+-----+-----+-----+  
R K T Q C M P R E V C I D V G K E F G V  
-----+-----+-----+-----+-----+-----+-----+  
301 CGCGACAACACCTTCTTTAAACCTCCATGTGTGTCCTCGTCTACAGATGTGGGGTGTGCTG  
-----+-----+-----+-----+-----+-----+-----+  
A T N T F F K P P C V S V Y R C G G C C

FIG. 2A

361 CAATAGTGGGGCTGCAGTGCATGAACACCAGCAGCTACCTCAGCAAGACGTTATT  
N S E G L Q C M N T S T S Y L S K T L F  
421 TGA AATTACAGTGCCTCTCTCTCAAGGCCCAACACAGTAACAATCAGTTTGCCAATCA  
E I T V P L S Q G P K P V T I S F A N H  
481 CACTTCCTGCCGATGCATGTCTAACTGGATGTTTACAGACAAGTTTCATTCCATTATTAG  
T S C R C M S K L D V Y R Q V H S I I R  
541 ACGTTCCCTGCCAGCAACTACCACAGTGTGAGCAGCGAACAAGACCTGCCCCACCAA  
R S L P A T L P Q C Q A A N K T C P T N  
601 TTACATGTGGAATAATCACATCTGCAGATGCCCTGGCTCAGGAAGATTTTATGTTTTCCTC  
Y M W N N H I C R C L A Q E D F M F S S  
661 GGATGCTGGAGATGACTCAACAGATGGATTCCATGACATCTGTGGACCAACAAGGAGCT  
D A G D D S T D G F H D I C G P N K E L

FIG. 2B

721 GGATGAAGACCTGTCAAGTGTCTGCAGAGCGGGCTTCGGCCTGCCAGCTGTGGACC  
D E E T C Q C V C R A G L R P A S C G P  
781 CCACAAAGAACTAGACAGAACTCATGCCAGTGTGTCTGTAAACAACTCTTCCCCAG  
H K E L D R N S C Q C V C K N K L F P S  
841 CCAATGTGGGCCAACCGAGAATTGTGATGAACACATGCCAGTGTGTATGTAAAGAAC  
Q C G A N R E F D E N T C Q C V C K R T  
901 CTGCCCCAGAAATCAACCCCTAAATCCTCGGAAATGTGCCCTGTGAATGTACAGAAAGTCC  
C P R N Q P L N P G K C A C E C T E S P  
961 ACAGAAATGCTTAAAGGAAGAAGTTCACCACCAACATGCAGCTGTACAGACG  
Q K C L L K G K K F H H Q T C S C Y R R  
1021 GCCATGTACGAACCGCCAGAGGCTTGTGAGCCAGGATTTTCATATAGTGAAGAAGTGTG  
P C T N R Q K A C E P G F S Y S E E V C

FIG. 2C



1081 TCGTTGTGTCCTTCATATTGGCAAGACCACAAATGAGCTAAGATTGTTACTGTTTCCCA  
-----+-----+-----+-----+-----+  
R C V P S Y W Q R P Q M S  
1141 GTTCATCGATTTTCTATTATGGAAACTGTGTGGCCACAGTAGAACTGTCTGTGAACAGA  
-----+-----+-----+-----+-----+  
1201 GAGACCCTTGTTGGTCCATGCTAACAAAGACAAAAGTCTGTCTTTCCCTGAACCATGTGGA  
-----+-----+-----+-----+-----+  
1261 TAACTTTACAGAAATGGACTGGAGCTCATCTGCAAAAGGCCCTCTTGTAAGACTGGTTTT  
-----+-----+-----+-----+-----+  
1321 CTGCCAATGACCACCAAGCCCAAGATTTTCCTCTTGTGATTTCTTTAAAGAATGACTATA  
-----+-----+-----+-----+-----+  
1381 TAAATTTATTTCCACTAAAAATATTGTTTCTGCAATTCATTTTATAGCAACAACAATTGGT  
-----+-----+-----+-----+-----+  
1441 AAAACTCACTGTGATCAATAATTTTATATCATGCACAAATATGTTTAAATAAATGAAAA  
-----+-----+-----+-----+-----+  
1501 TTGTATTATAAAAAA  
-----+-----+-----+-----+-----+

FIG. 2D

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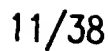
1 50  
Pd gfa .MRTLACLLL LCGYLAHVL AEEAEIPREV IERLARSQIH SIRD LQRLL E  
Pd gfb MNRCWA.LFL SLCCYLR LVS AEGDPIPEEL YEMLSOHSIR SFDDLQRLLH  
Vegf .....MNFL L SWHWSLALL LY.....LHAKWSQA  
Vegf2 .....MTV LYPEYKMYK CQ.....LRKGGWQH N

51 100  
Pd gfa IDSVGSEDSL DTSRAHGVH ATKHVPEKRP LPIRRKRSI. ....EEAVP  
Pd gfb GDP.GEEDGA ELDLNMTRSH SGGELES... .LARGRRSLG SLTIAEPAMI  
Vegf APMAE.....GGGQ NHHEVVKFMD .VYQR.....  
Vegf2 REQANLNSRT EETIKFAAAH YNTEILKSID NEWRK.....

101 150  
Pd gfa AVCKTRTVIY EIPRSQVDPT SANFLIWPPC VEKRC TGCC NTSSVKQPS  
Pd gfb AECKTRTEVF EISRRLIDRT NANFLWPPC VEVQRCGCC NNRNVQCRPT  
Vegf SYCHPIETLV DIFOEYPDEI ..EYIFKPSC VPLMRGGGCC NDEGLECVPT  
Vegf2 TQCMPREVCI DVGKEFGVAT ..NTFFKPPC VSVYRCGGCC NSEGLQCMNT

151 200  
Pd gfa RVHRSVKVA KVEYVRKKPK LKEVQVRLEE HLEQAC.....AT.....  
Pd gfb QVQLRPVQVR KIEIVRKKPI FKKATVTLED HLAQKQ.....ETVAAARPVT  
Vegf EESNITMQIM RIK.PH..QG QHIGEMSFLQ HNKCECRPKK DRARQEKKS V  
Vegf2 STSYLSKTLF EIT.VPLSQG PKPVTISFAN HTSCRCMSKL DVYRQVHSII

FIG. 3A



	351		398
Pdgfa	.....	.....	.....
Pdgfb	.....	.....	.....
Vegf	.....	.....	.....
Vegf2	KGKKFHHQTC	SCYRRPCTNR	QKACEPGFSY
		SEEVCRCPVS	YWQRPQMS

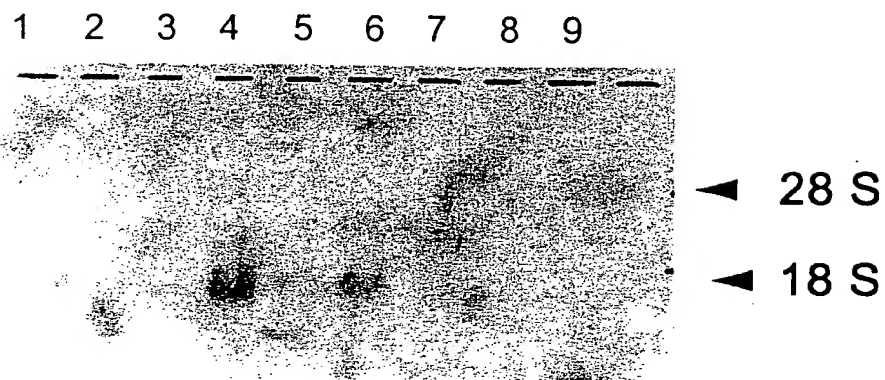
**FIG. 3B**

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PERCENTAGE (%) OF AMINO ACID IDENTITIES BETWEEN EACH PAIR OF GENES IS SHOWN IN THE FOLLOWING TABLE				
	PDGF $\alpha$	PDGF $\beta$	VEGF	VEGF2
PDGF $\alpha$				
PDGF $\beta$	48.0			
VEGF	20.7	22.7		
VEGF2	23.5	22.4	30.0	

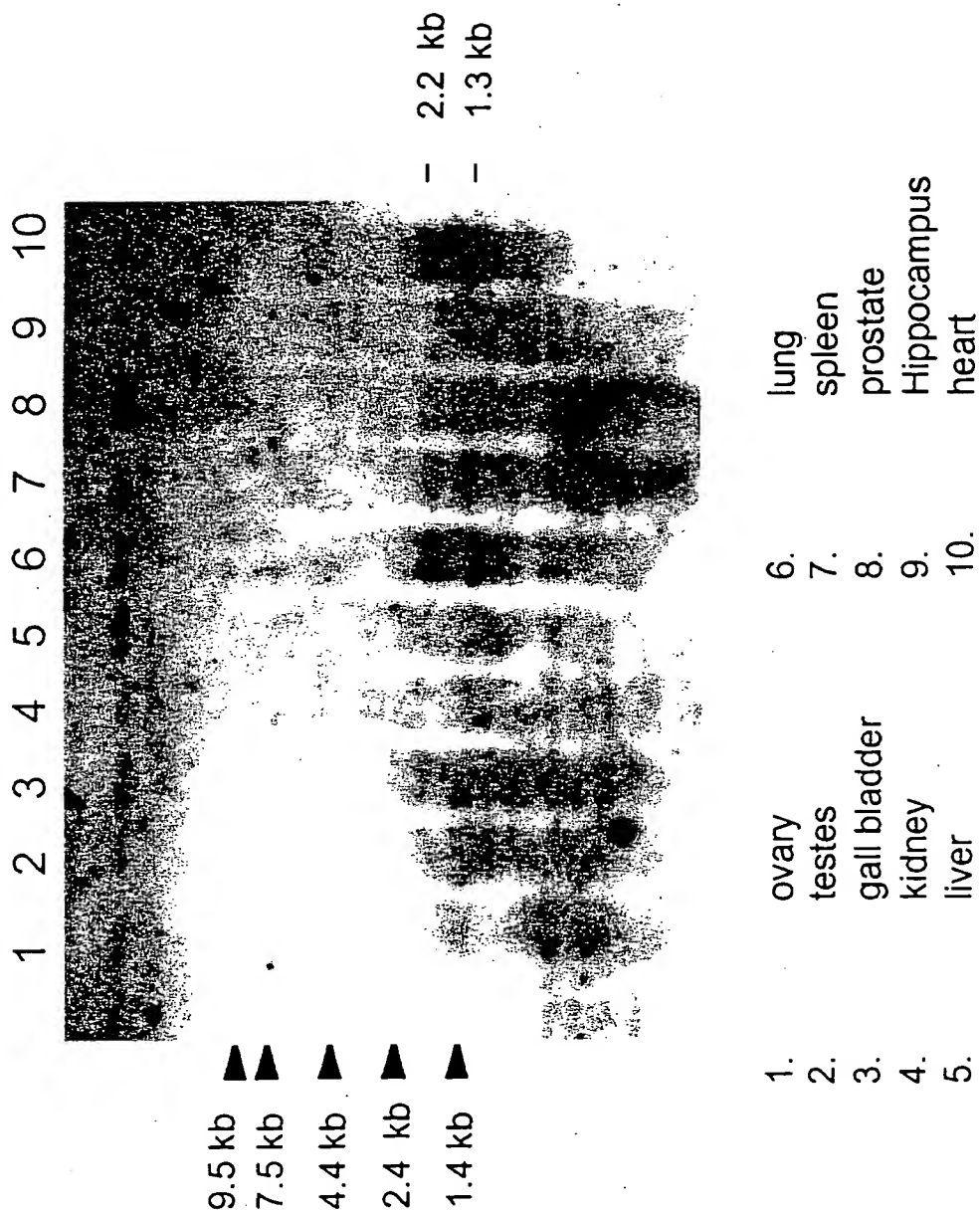
FIG.4

Expression of VEGF2 mRNA in  
Human Breast Tumor Cells



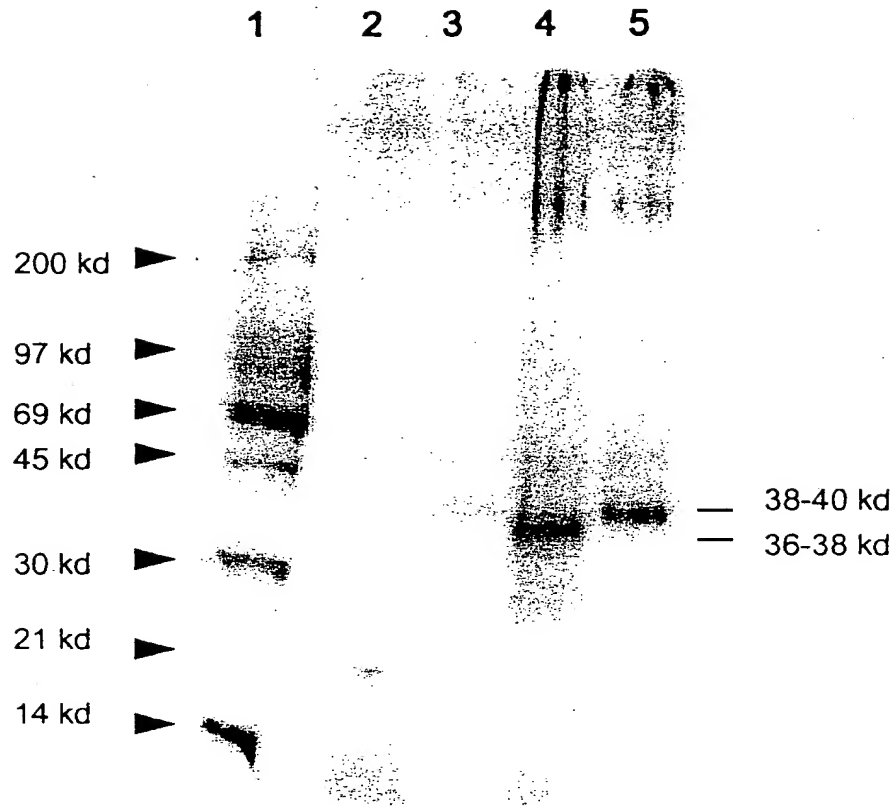
Lane 1. normal breast tissue  
Lane 2. breast tumor tissue  
Lane 3-9. breast tumor cell lines.

FIG.5



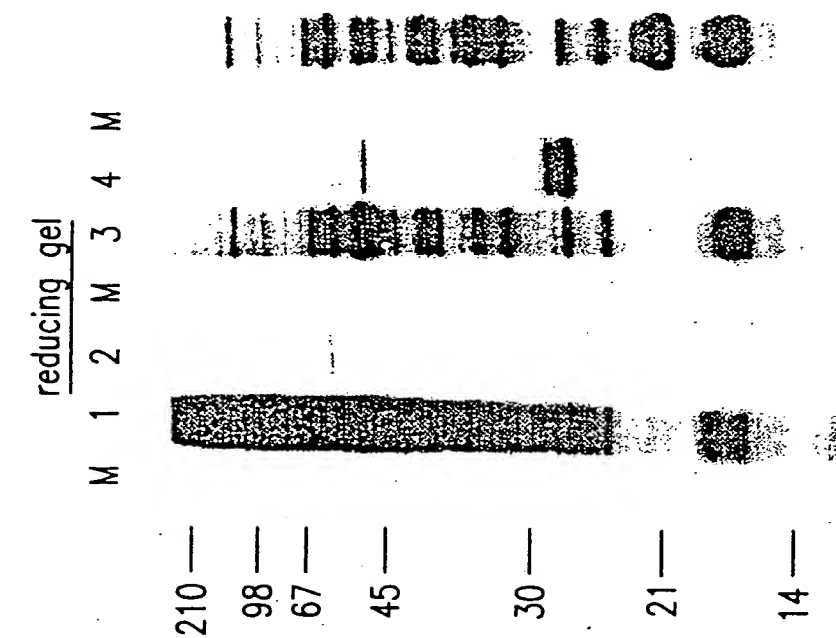
Expression of VEGF2 mRNA in human adult tissues.

FIG.6



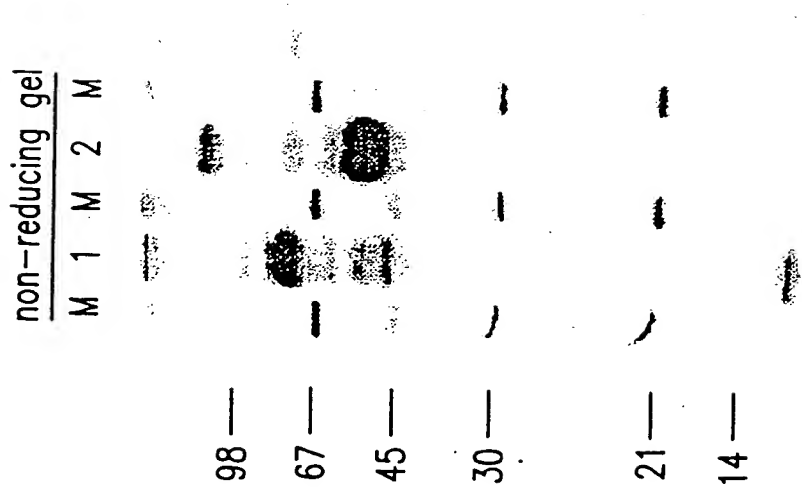
Lane 1: 14-C and rainbow M.W. marker  
Lane 2: FGF control  
Lane 3: VEGF2 (M13-reverse & forward primers)  
Lane 4: VEGF2 (M13-reverse & VEGF-F4 primers)  
Lane 5: VEGF2 (M13-reverse & VEGF-F5 primers)

FIG.7



Lane M: Marker  
 Lane 1: vector Cytoplasm  
 Lane 2: vector medium  
 Lane 3: VEGF2 Cytoplasm  
 Lane 4: VEGF2 medium

FIG.8B



Lane M: Marker  
 Lane 1: vector medium  
 Lane 2: VEGF2 medium

FIG.8A





FIG. 9

FIG. 10

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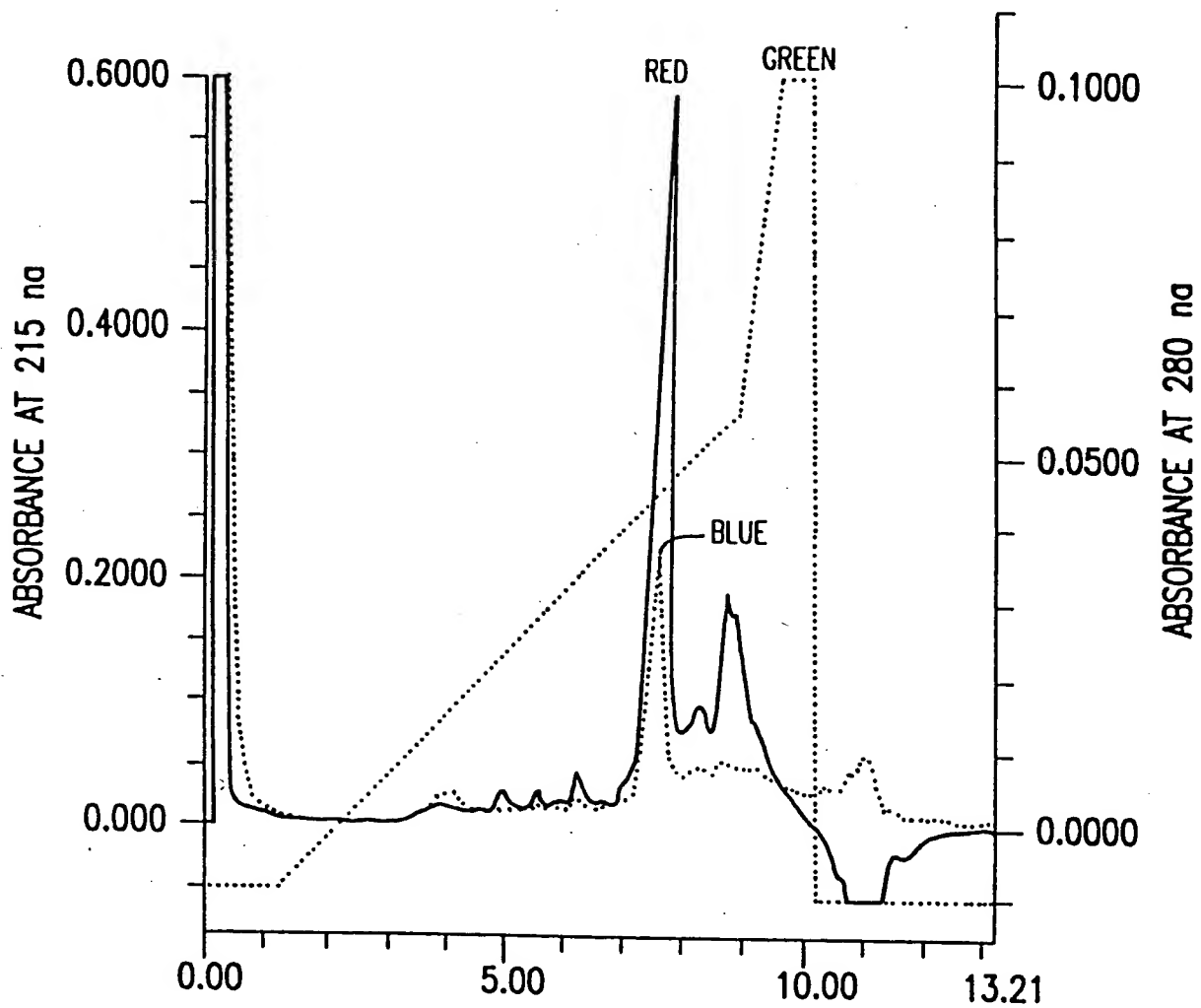


FIG. 11

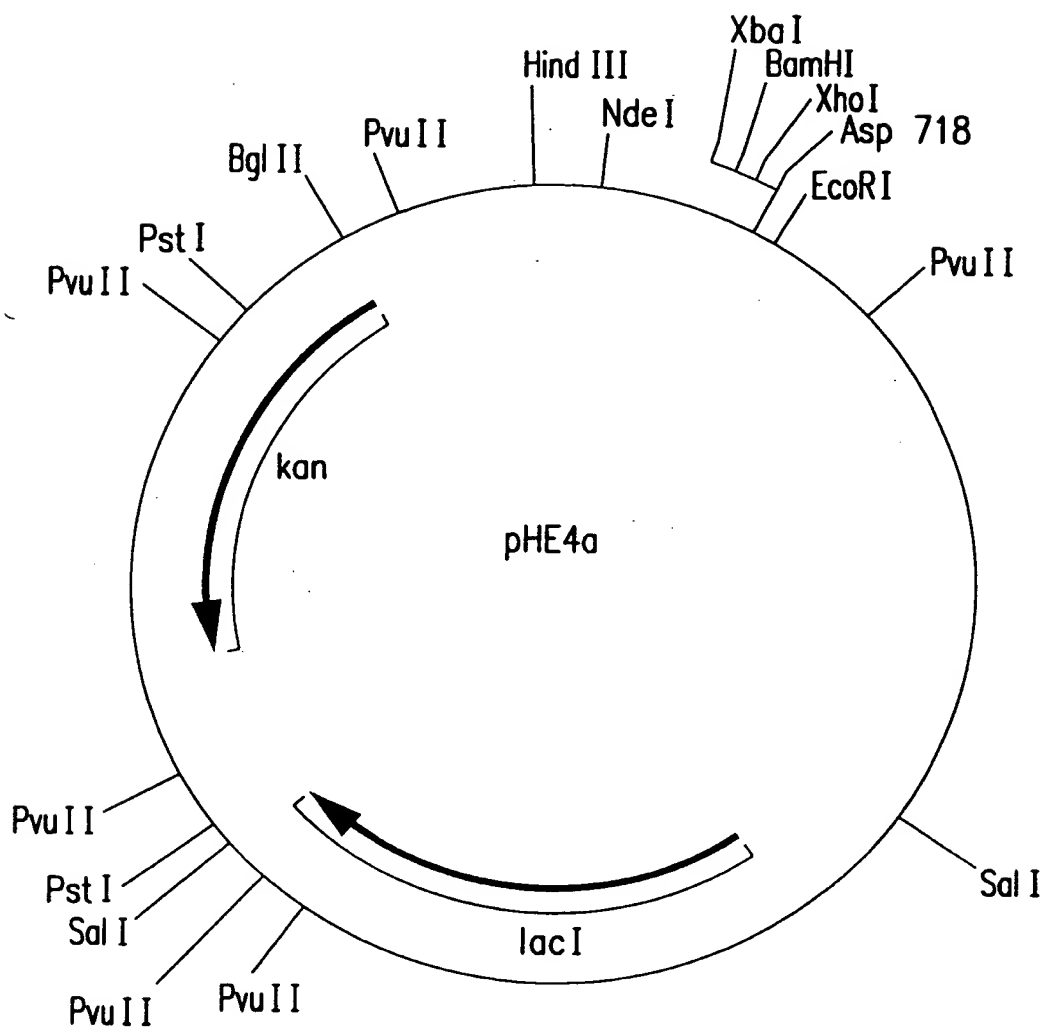


FIG.12



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-35 OPERATOR 1

1 AAGCTTAA AACTGCAAA AATAGT TTGACT(TGTGAGCGGATAAGAAAT)

OPERATOR 2

-10

50 TAAGATGTACCC(AATTGAGCGGATAACAAT)TTCACACATTAA

S/D

94 AGACGAGAAATTA CATATG

FIG.13

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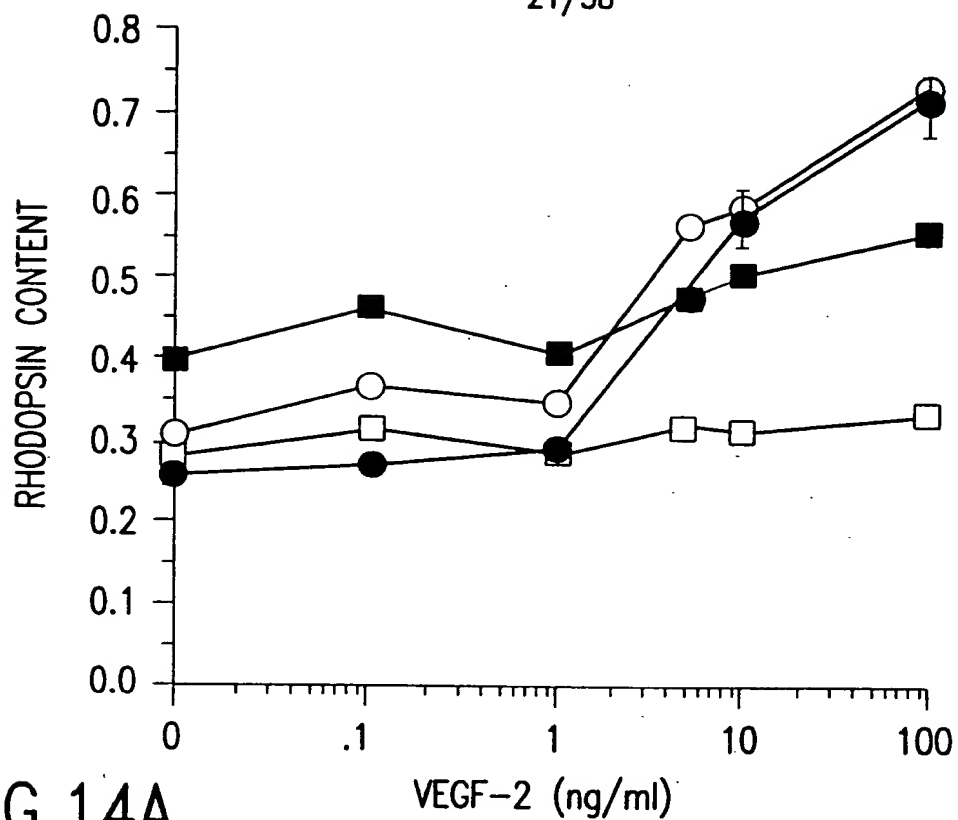


FIG.14A

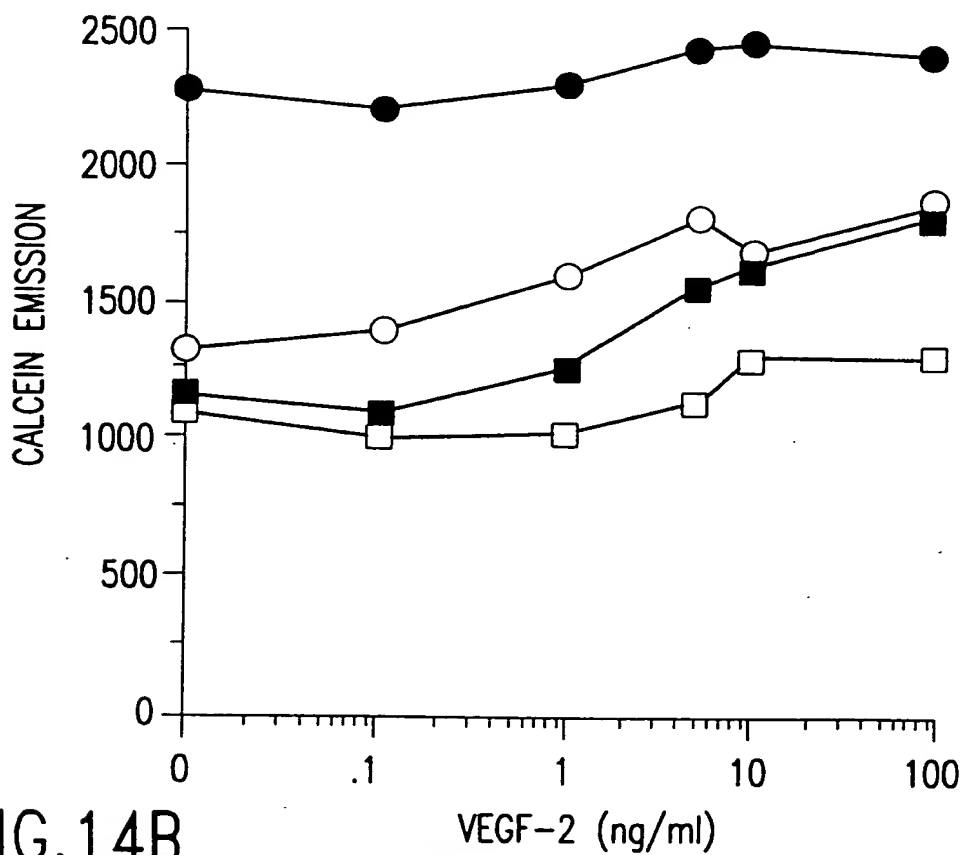


FIG.14B

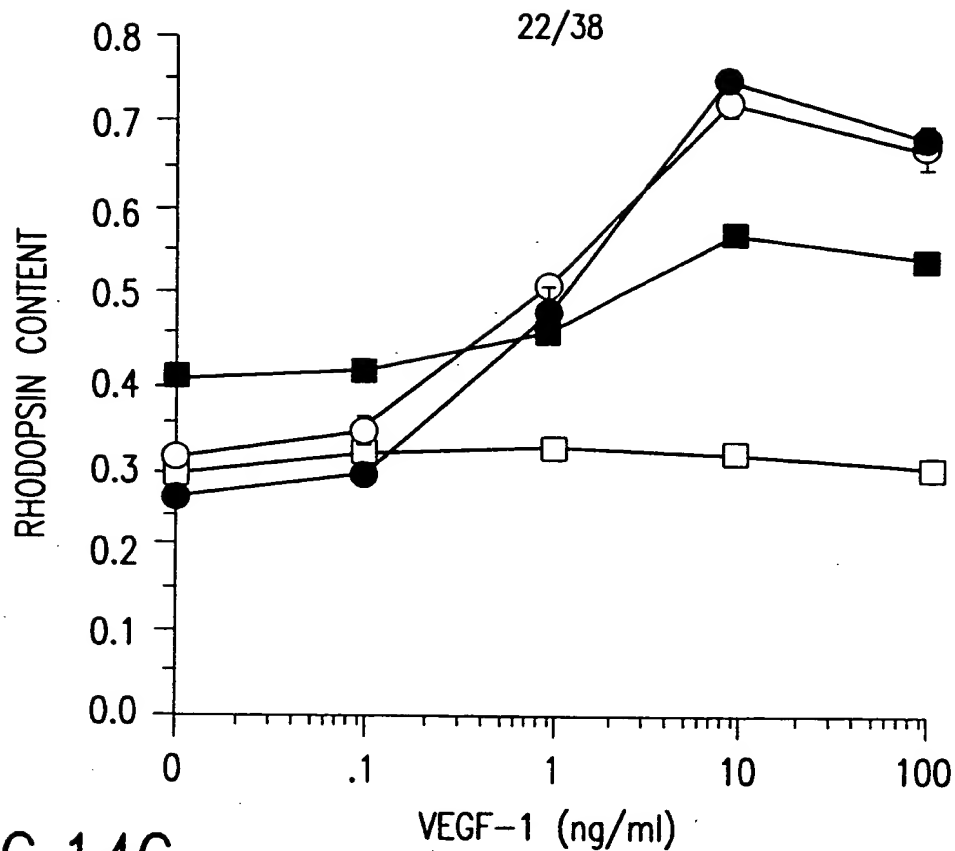


FIG.14C

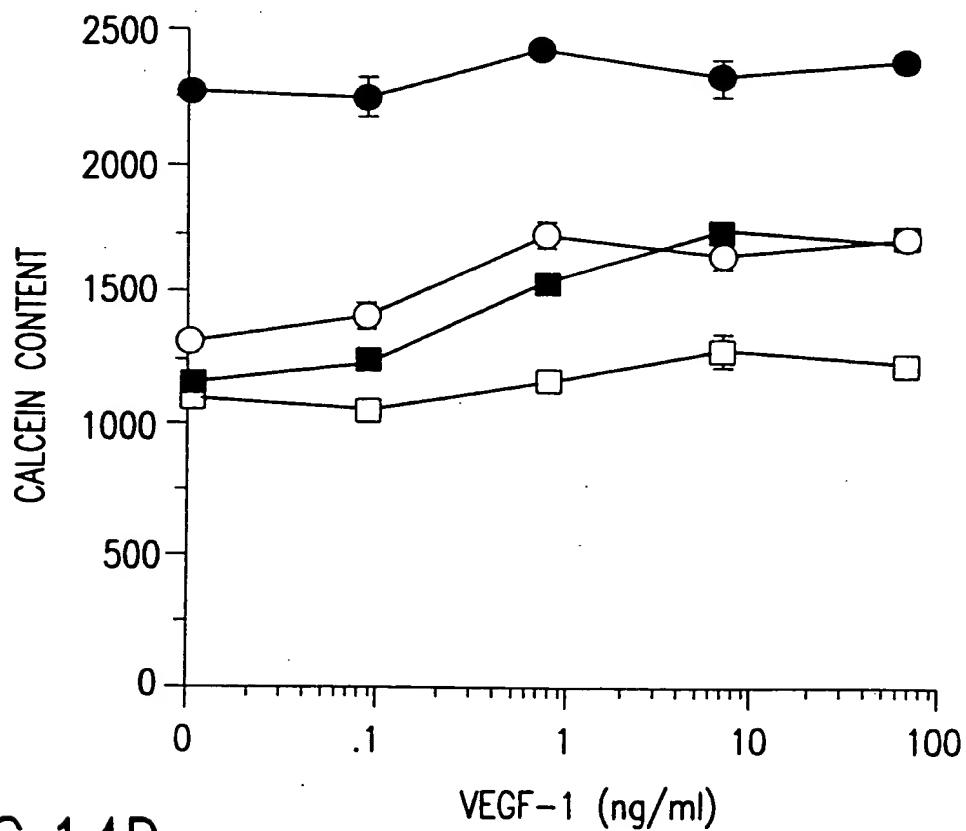


FIG.14D

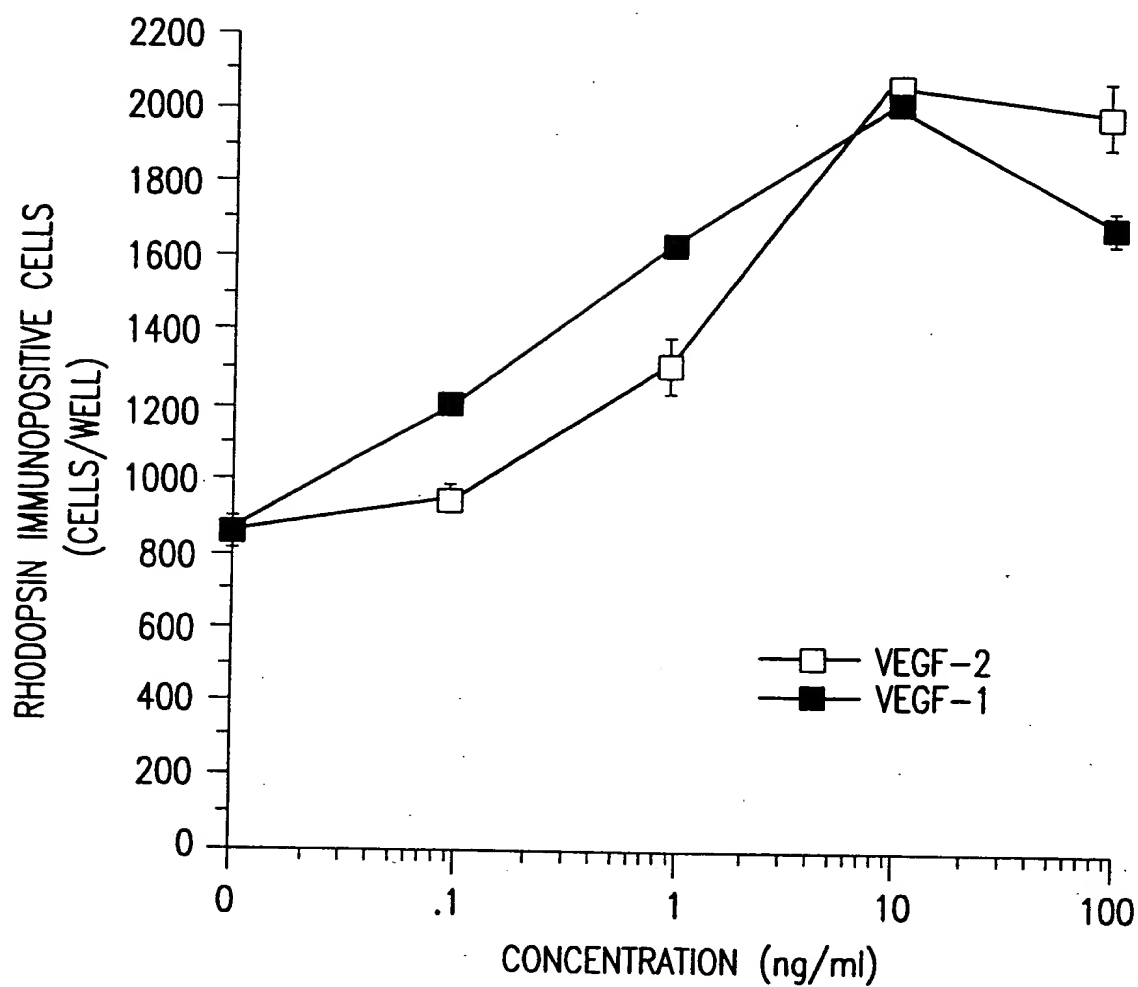


FIG.15

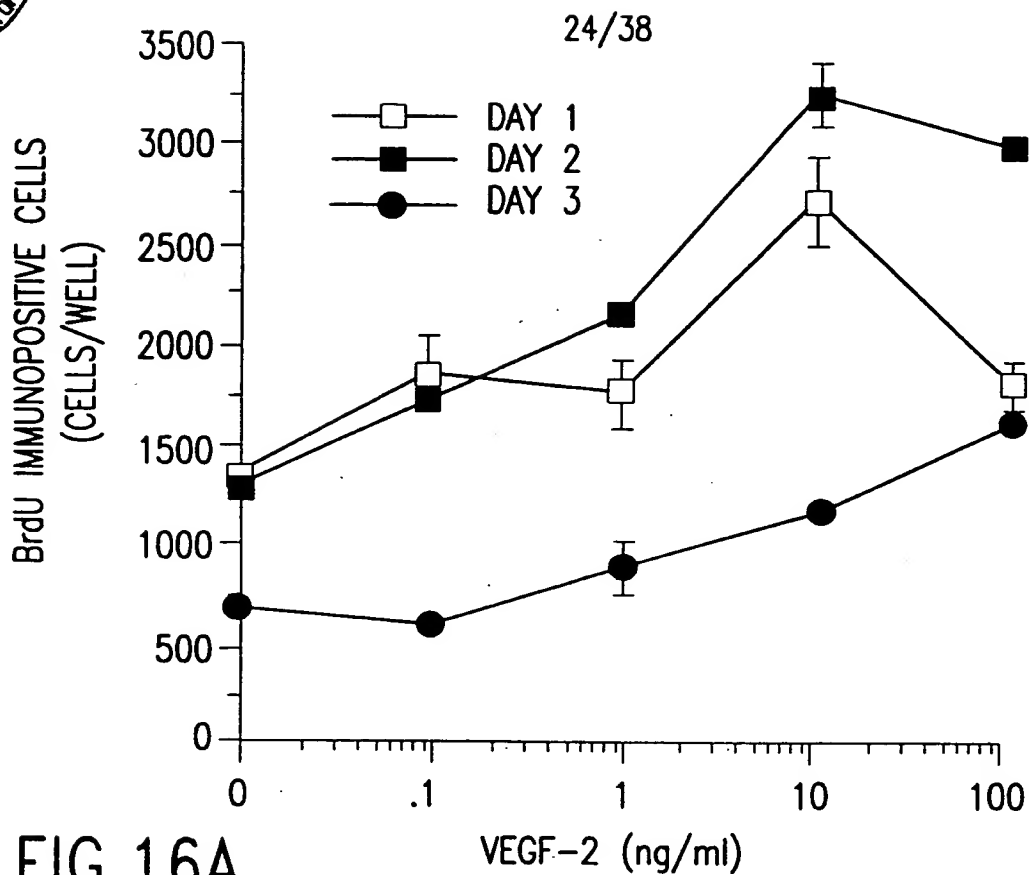


FIG.16A

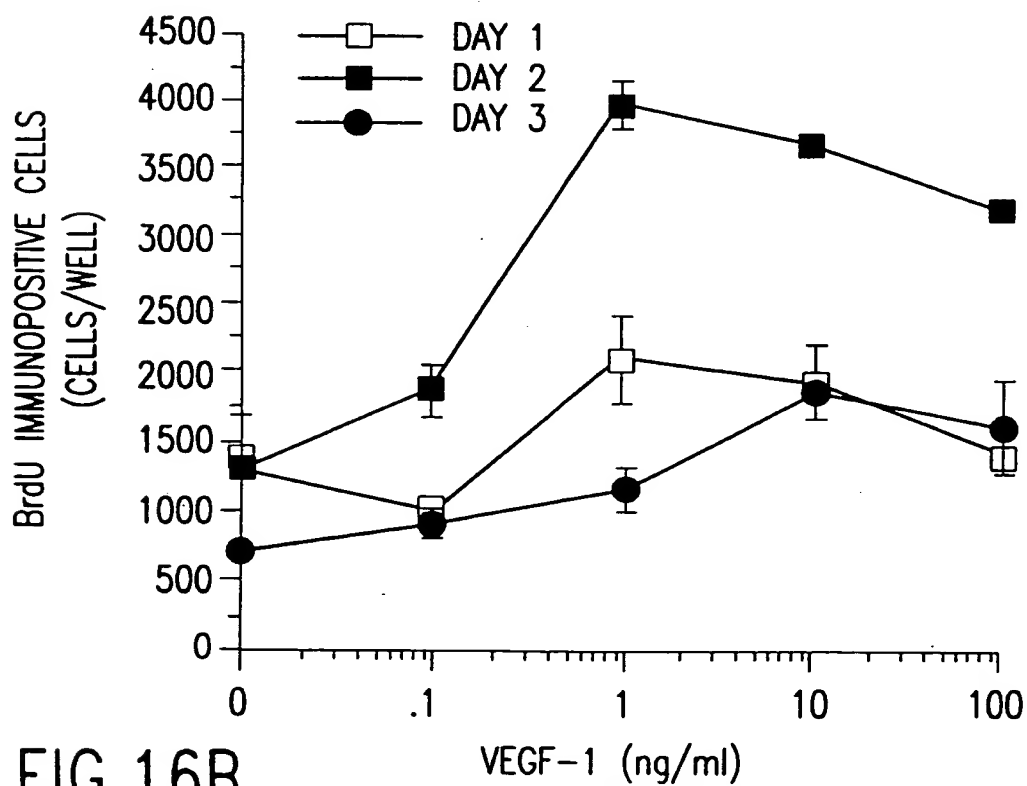


FIG.16B



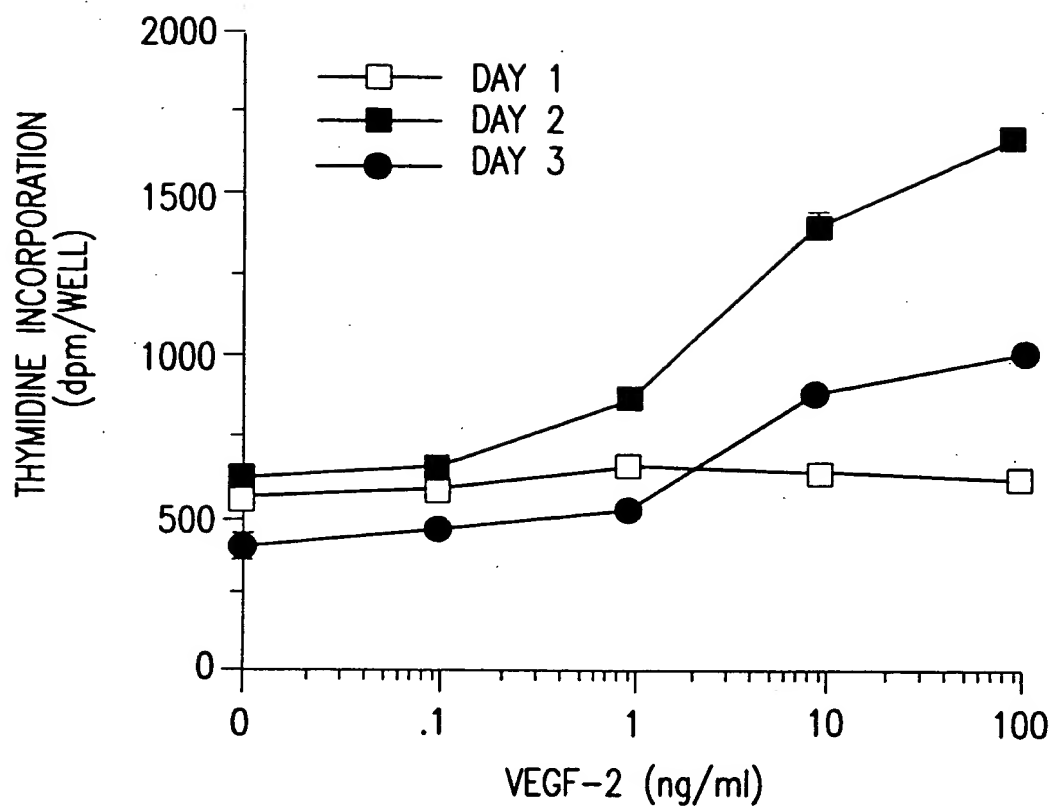


FIG.16C

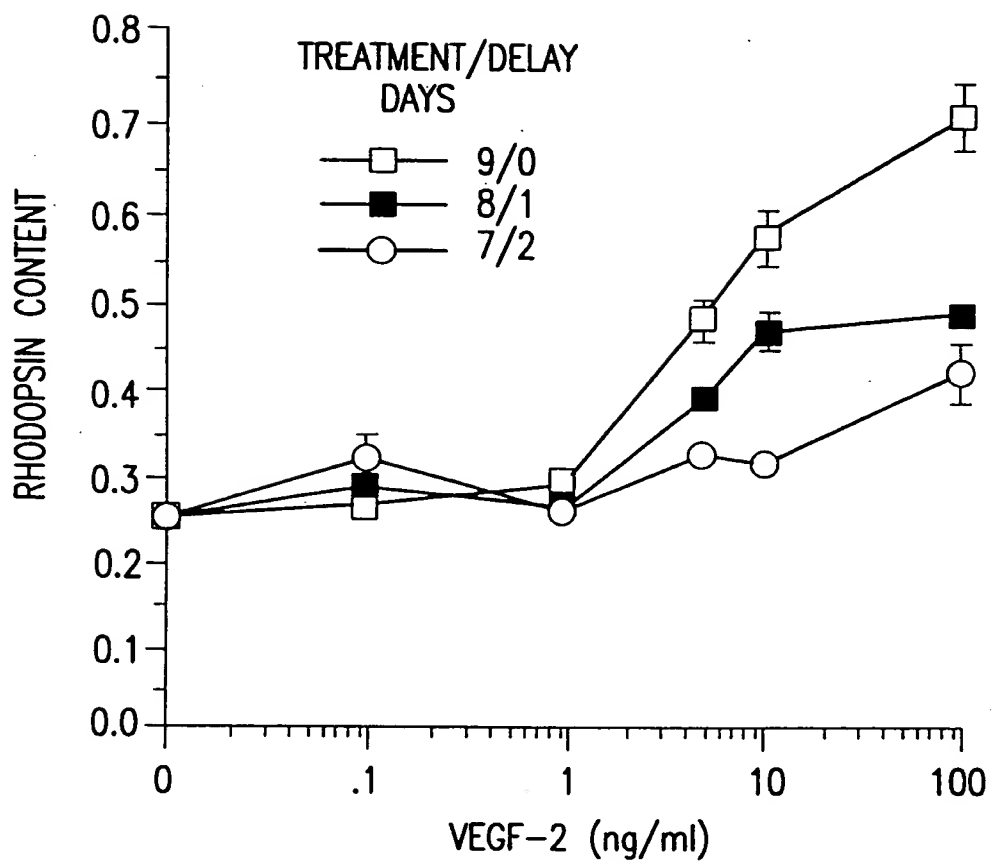


FIG.17A

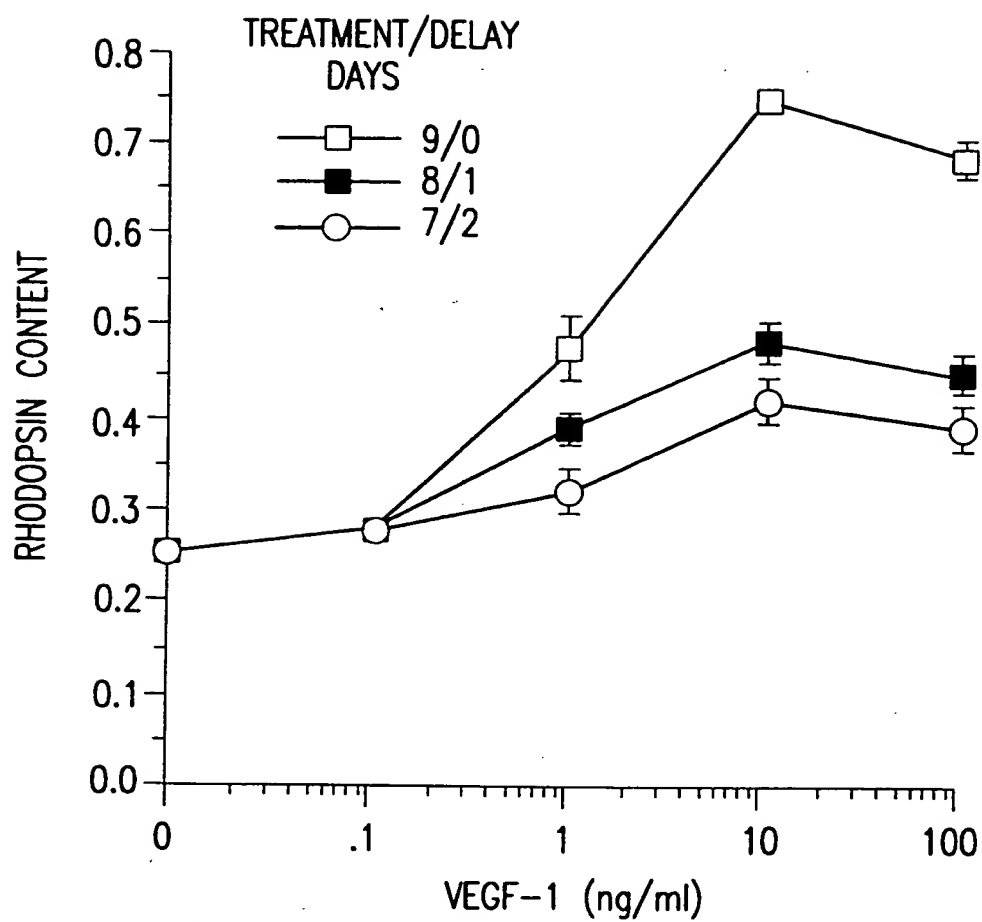


FIG.17B

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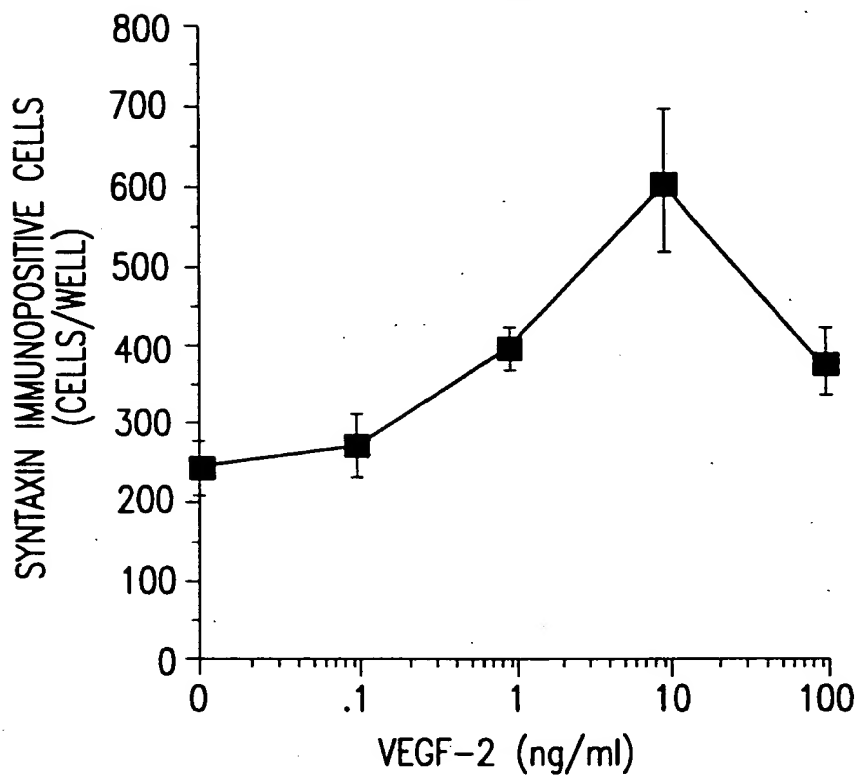


FIG.18A

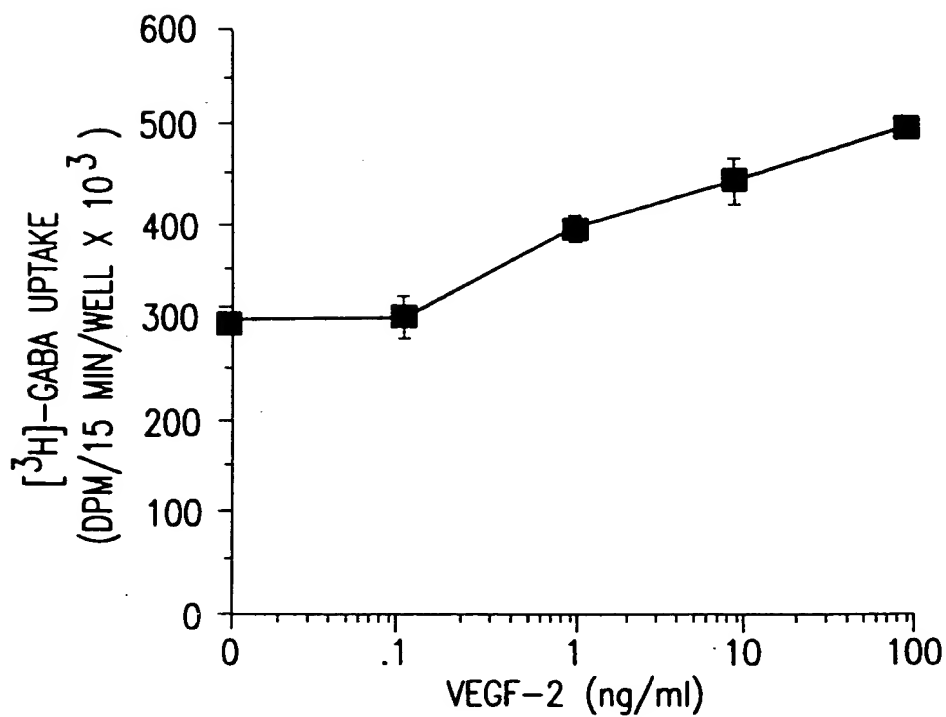


FIG.18B

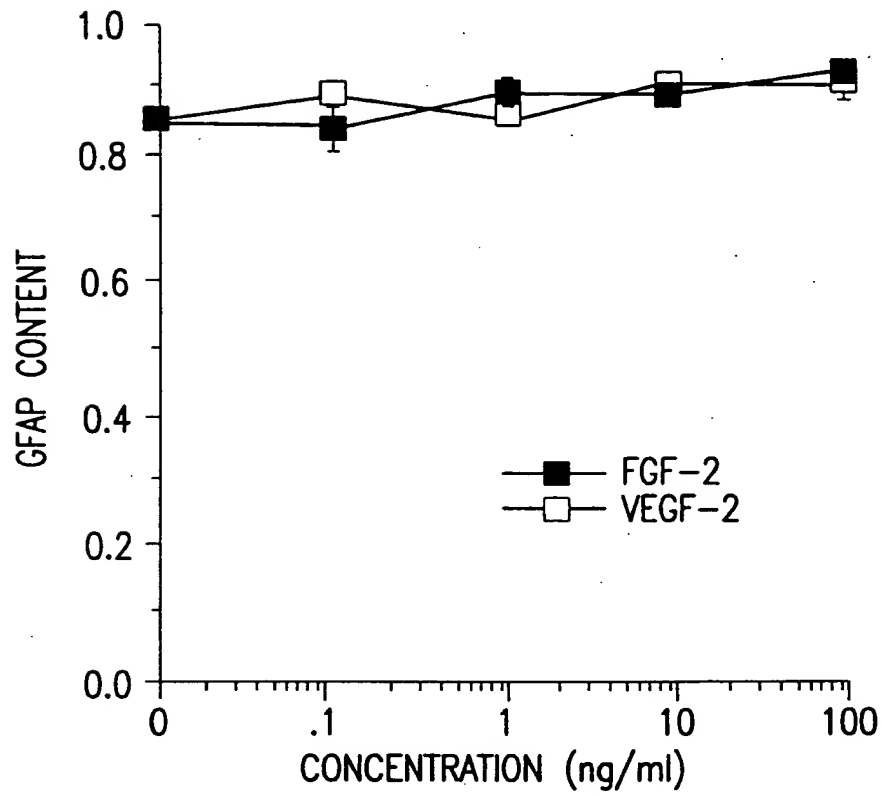


FIG.18C

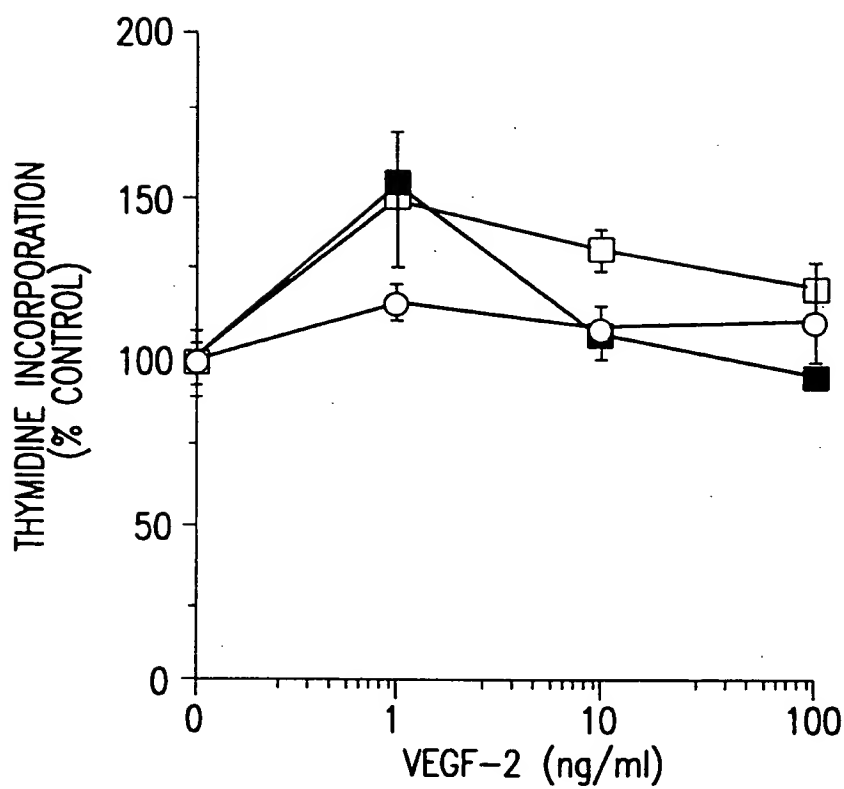


FIG.19A

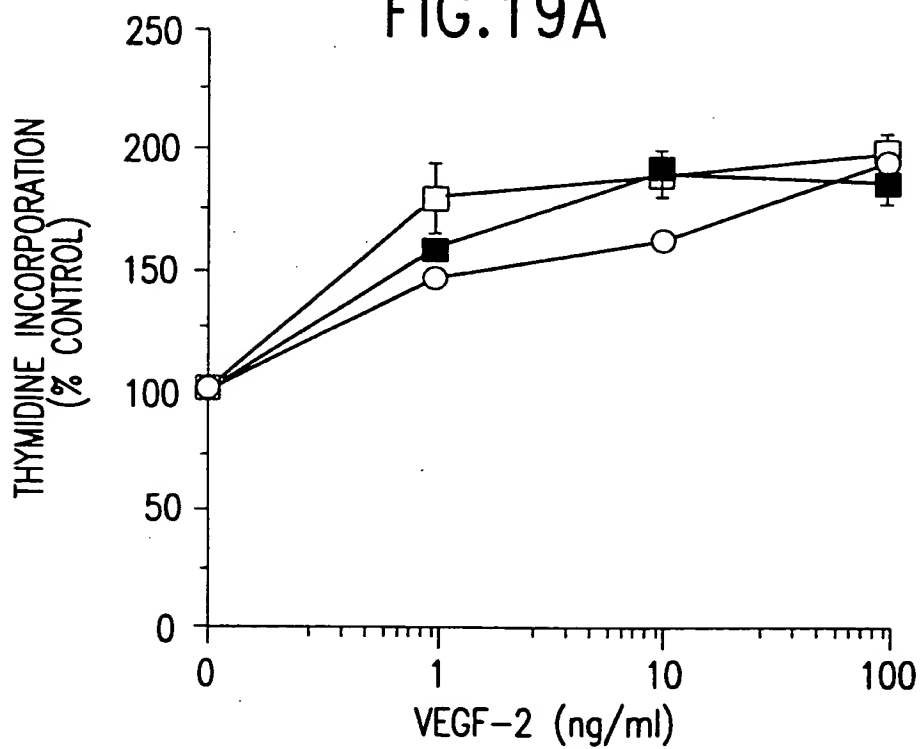


FIG.19B

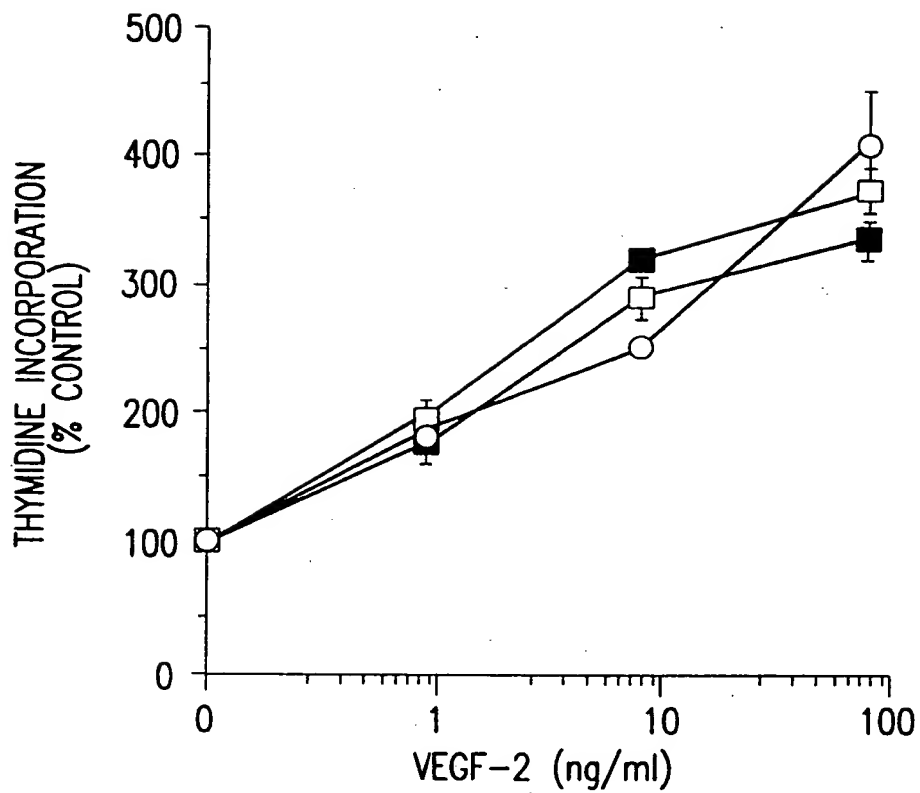


FIG.19C

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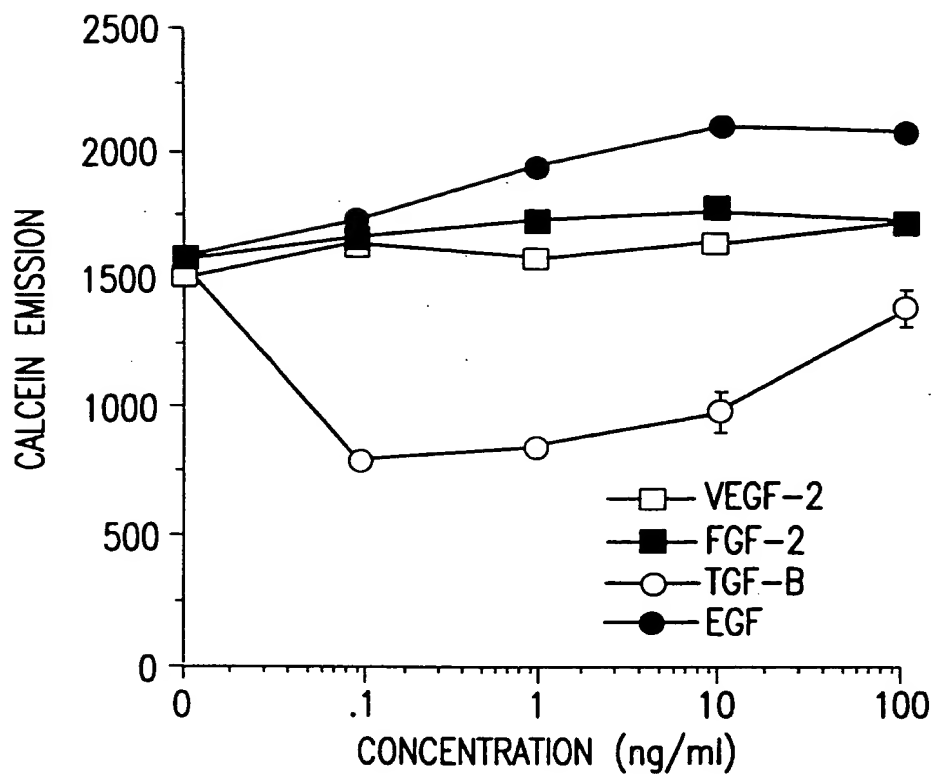


FIG.20A

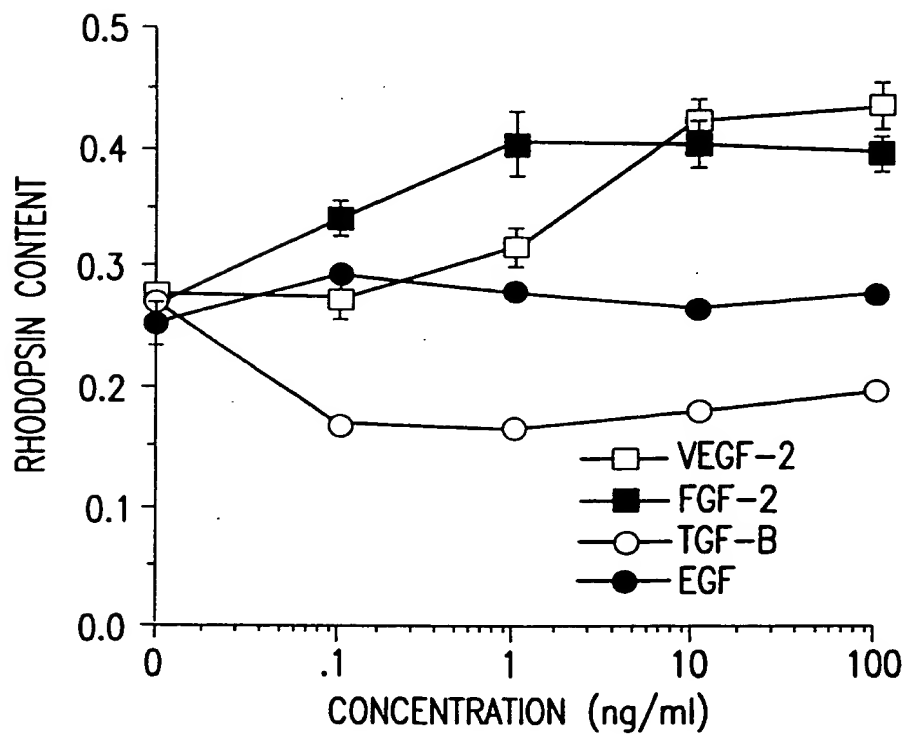


FIG.20B



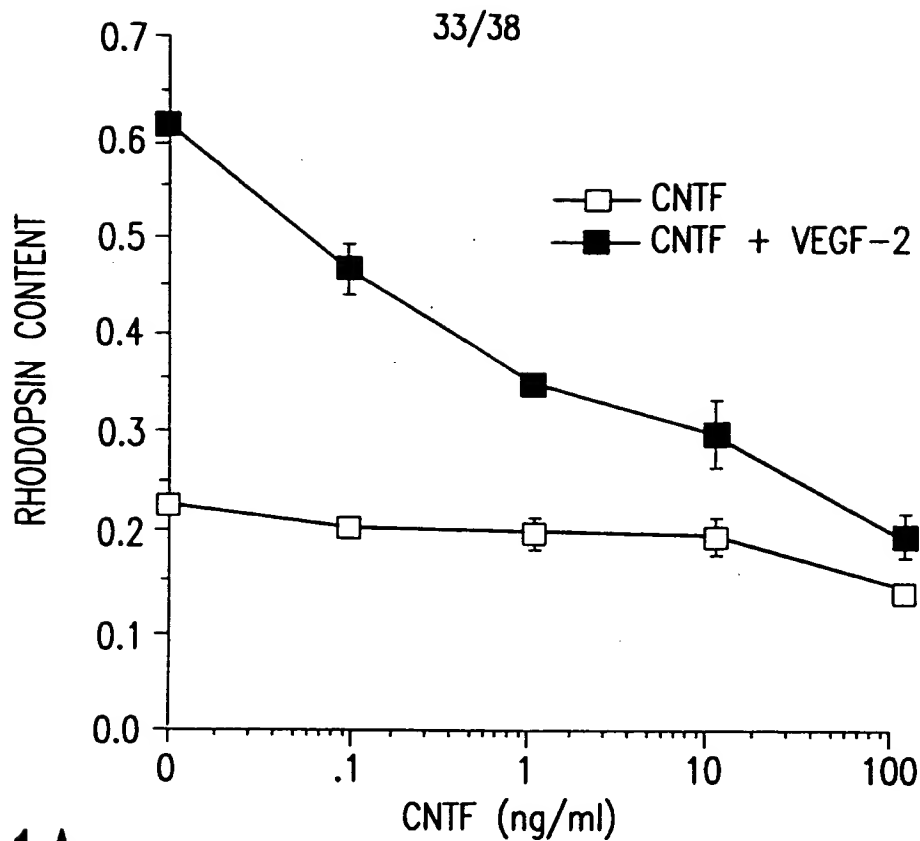


FIG.21A

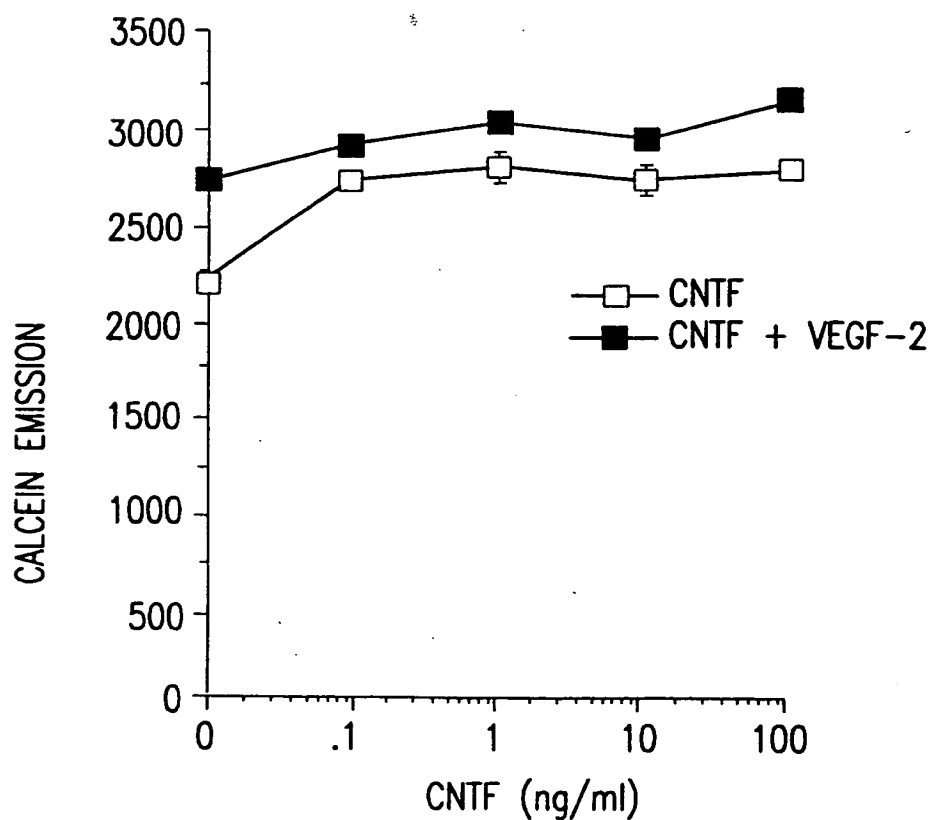


FIG.21B

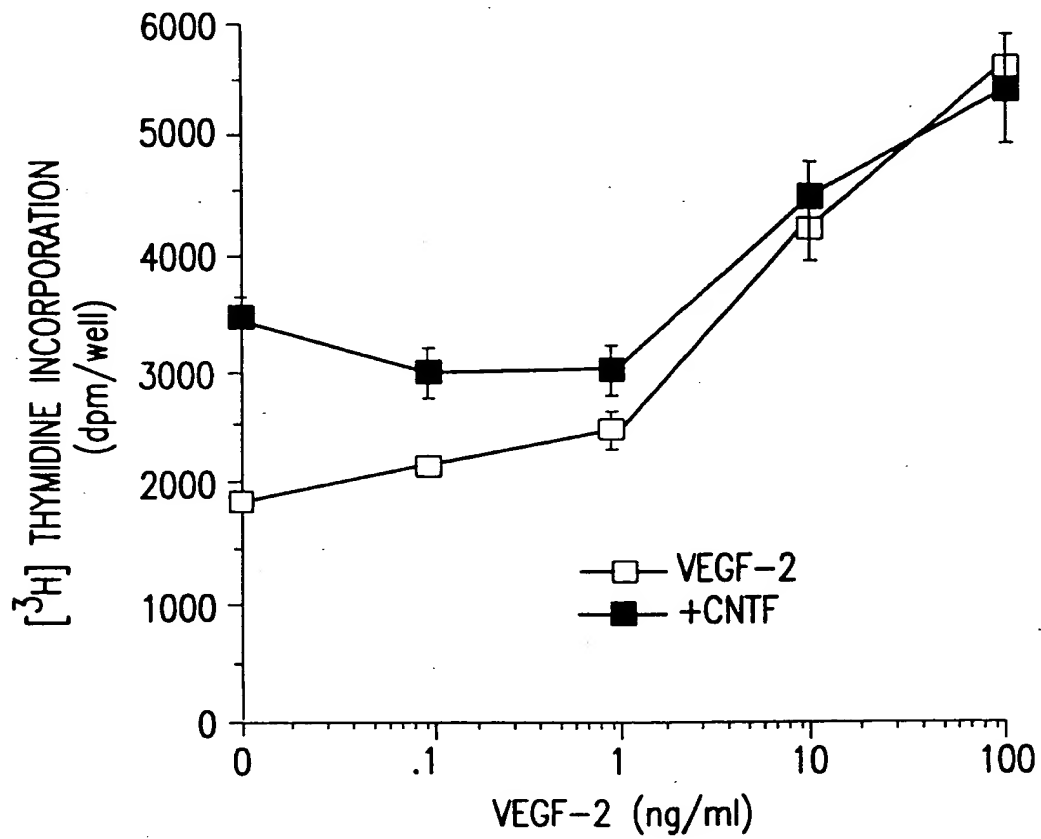


FIG.21C

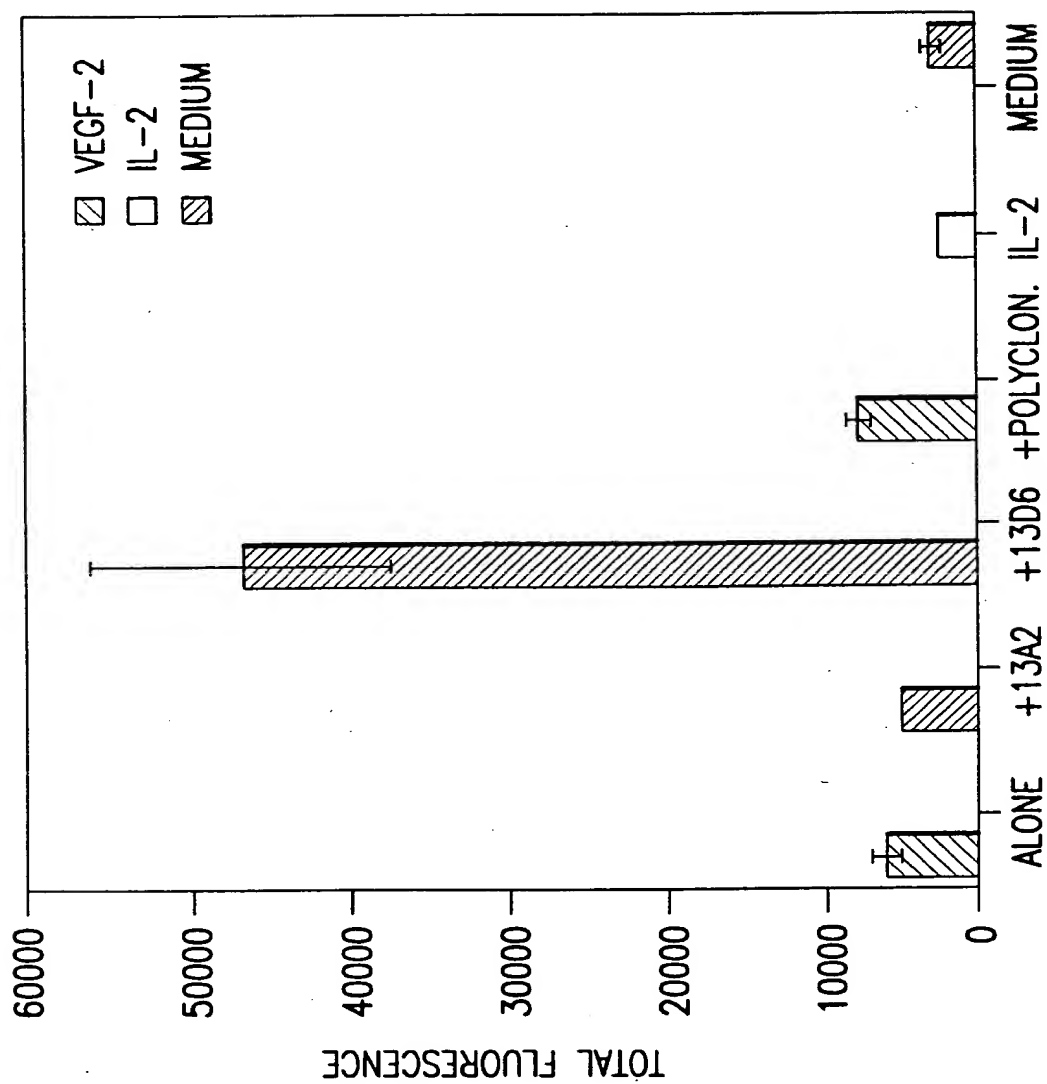


FIG.22

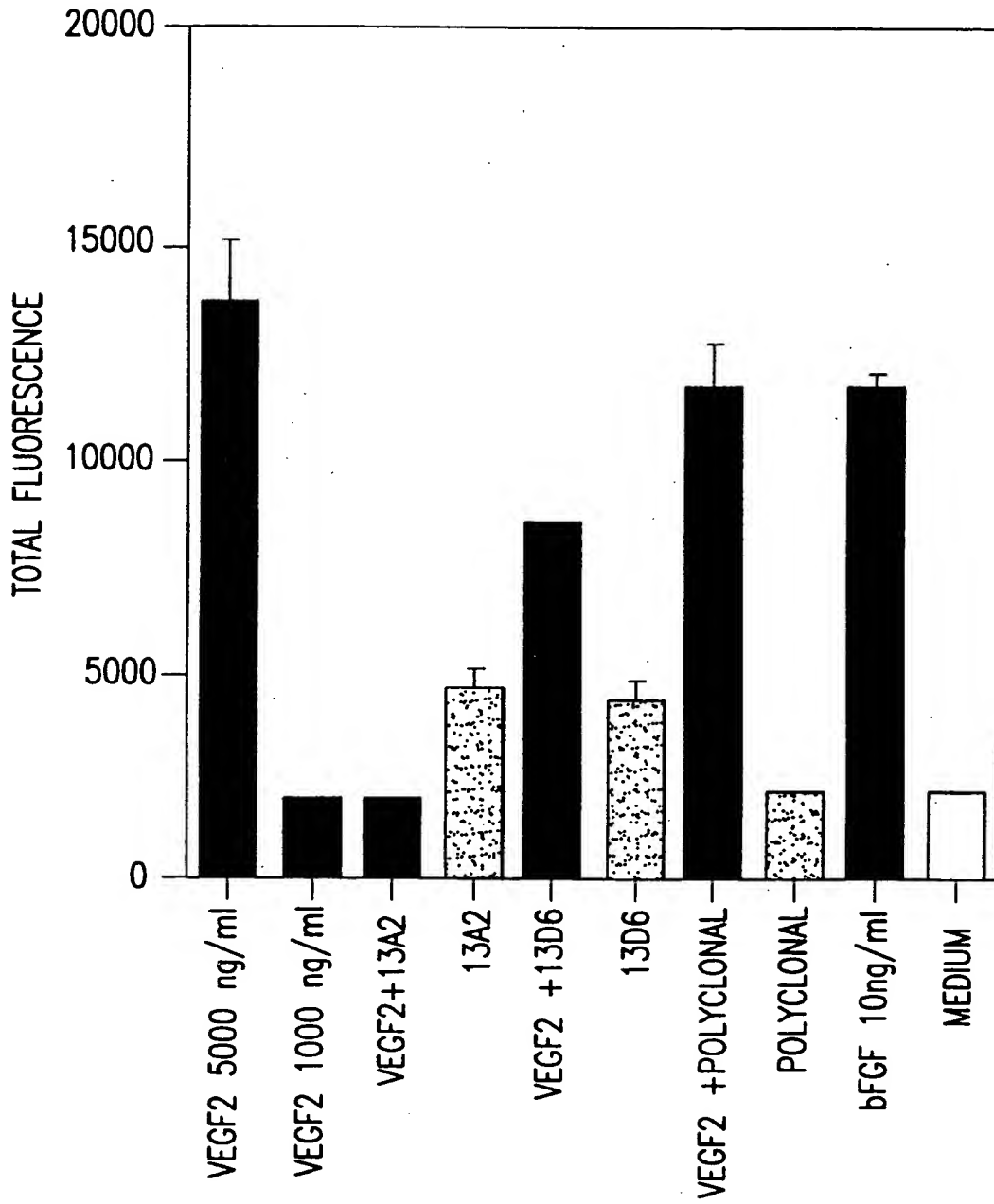


FIG.23

EPITOPE MAP FOR MURINE ANTI VEGF-2 MAB

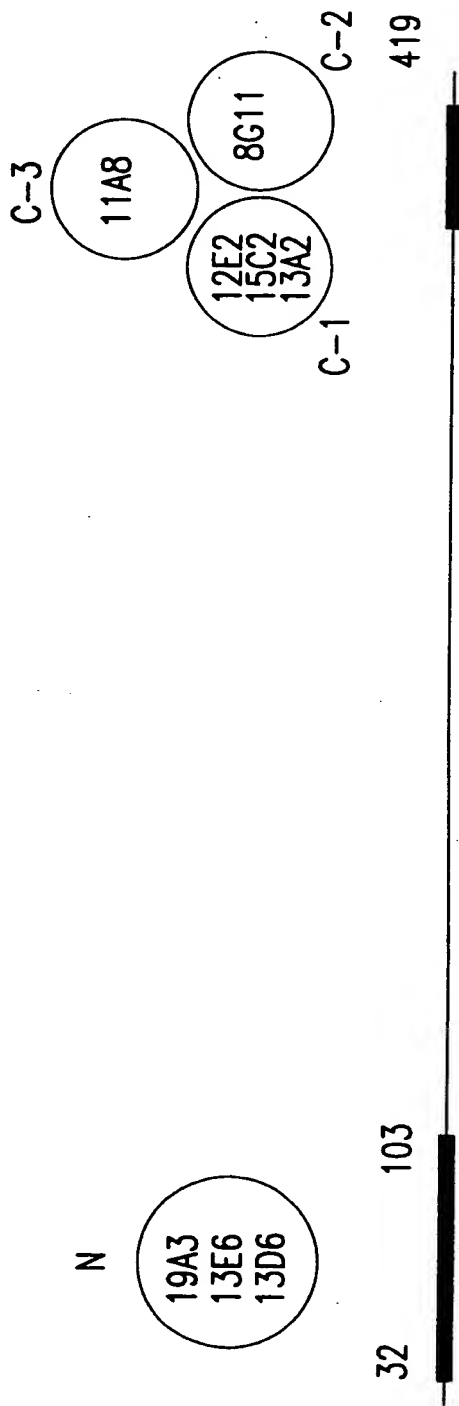


FIG.24



## MURINE VEGF-2 MAB STATUS

	ISOTYPE	REL. AFFINITY ng/ml	SPECIFICITY	REACTIVITY		PURIFIED mg
				WESTERN	ELISA	
12E2	$\gamma$ 1	<1	C-1	+	+	27
13A2	$\gamma$ 1	<1	C-1	n.t	+	27
15C2	$\gamma$ 1	<1	C-1	n.t	+	10
13D6	$\gamma$ 1	<1	N	+	+	25
13E6	$\gamma$ 1	1	N	+	+	38
19A3	$\gamma$ 1	1	N	+	+	54
8G11	$\gamma$ 1	5	C-2	+	+	7
11A8	$\gamma$ 1	<1	C-3	+	+	9

FIG.25